

## **REMARKS**

### **Overview**

Claims 1-41 are pending in the present application. A final action has been entered against the claims. The final action has been carefully reviewed. The present response is an earnest effort to place all claims in proper form for allowance or in better form for appeal. Pursuant to Rule 1.1116, entry and reconsideration is respectfully requested.

### **Claim Rejections Under 35 U.S.C. § 101**

The Action maintains that Claims 16-20 and 35-41 do not meet the standard for eligibility for patenting under 35 U.S.C. § 101. Applicant respectfully traverses the § 101 rejection for at least the reasons set forth in prior responses, which are incorporated by reference herein.

Reconsideration is requested based on the following.

The Action characterizes Applicant's claim 16 as "non-functional description". To the contrary, Claim 16 includes the following limitations:

- "An interactive learning system";
- "a lesson in the form of information on a digital media that is viewable and perceivable by a user on an information processing device";
- "learning assistance...in the form of additional information on the digital media that is viewable and perceivable by a user on an information processing device;"
- "the additional information available to the user via the information processing device...user-selectable, at any time and in any order."

A learning system, in the context of Applicant's specification, is recited that can be implemented in the form of a computer program which can be displayed to and used by a learner.

The system provides for certain explicitly functional limitations, including but not limited to, viewing and perceiving information, and allowing user-selection of additional information at any time and in any order. Applicant's specification describes exemplary embodiments. Figure 1 shows one embodiment in the form of digital content on a CD-ROM that can be used with a computer. Claim 16 includes not only the digital media but an information processing device. It is respectfully submitted that the claim includes both apparatus and functional limitations.

As stated in the Manual of Examining Procedure (MPEP), a claim that contains both is considered an apparatus claim with functional limitations, and is proper:

The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter -- [provided the subject matter falls into at least one category of statutory subject matter] but rather on the essential characteristics of the subject matter, in particular, its practical utility.

For example, a claimed invention may be a combination of devices that appear to be directed to a machine and one or more steps of the functions performed by the machine. Such instances of mixed attributes, although potentially confusing as to which category of patentable subject matter the claim belongs, does not affect the analysis to be performed by USPTO personnel. Note that an apparatus claim with process steps is not classified as a "hybrid" claim; instead, it is simply an apparatus claim including functional limitations. See, e.g., *R.A.C.C. Indus. v. Stun-Tech, Inc.*, 178 F.3d 1309 (Fed. Cir. 1998) (unpublished).

The burden is on the USPTO to set forth a *prima facie* case of unpatentability. Therefore if USPTO personnel determine that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, they must provide an explanation. For example, a claim reciting only a musical composition, literary work, compilation of data, >signal,< or legal document (e.g., an insurance policy) *per se* does not appear to be a process, machine, manufacture, or composition of matter. >See, e.g., *In re Nuitjen*, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like Nuitjen's is not a 'process, machine, manufacture, or composition of matter.' ... Thus, such a signal cannot be patentable subject matter.")< If USPTO personnel can establish a *prima facie* case that a claim does not fall into a statutory category, the patentability analysis does not end there. USPTO personnel must further continue with the statutory subject matter analysis as set forth below. Also, USPTO personnel must still examine the claims for compliance with 35 U.S.C. 102, 103, and 112.

MPEP, Section 2106 IV B. It is respectfully submitted that Applicant's claim 16 is not an abstract idea, law of nature, or natural phenomena.

The Action also takes the position that the phrase "interactive learning system" is non-statutory. However, the MPEP instructs that any claim must be interpreted in light of the application specification and in the context of the understanding of one of ordinary skill in the art:

USPTO personnel must always remember to use the perspective of one of ordinary skill in the art. Claims and disclosures are not to be evaluated in a vacuum. If elements of an invention are well known in the art, the applicant does not have to provide a disclosure that describes those elements.

Finally, when evaluating the scope of a claim, every limitation in the claim must be considered. USPTO personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered. See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 188-89, 209 USPQ 1, 9 (1981) ("In determining the eligibility of respondents' claimed process for patent protection under § 101, their claims must be considered as a whole. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis. This is particularly true in a process claim because a new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made.").

MPEP Section 2106 I C. The term "system" is routinely used when referring to a combination of functional limitations. See several definitions below:

**sys·tem** (sɪsˈtɪm)

*n.*

1. A group of interacting, interrelated, or interdependent elements forming a complex whole.
2. A functionally related group of elements, especially:
  - a. The human body regarded as a functional physiological unit.
  - b. An organism as a whole, especially with regard to its vital processes or functions.
  - c. A group of physiologically or anatomically complementary organs or parts: *the nervous system; the skeletal system*.
  - d. A group of interacting mechanical or electrical components.
  - e. A network of structures and channels, as for communication, travel, or distribution.
  - f. A network of related computer software, hardware, and data transmission devices.
3. An organized set of interrelated ideas or principles.

4. A social, economic, or political organizational form.
5. A naturally occurring group of objects or phenomena: *the solar system*.
6. A set of objects or phenomena grouped together for classification or analysis.
7. A condition of harmonious, orderly interaction.
8. An organized and coordinated method; a procedure. See Synonyms at **method**.
9. The prevailing social order; the establishment. Used with *the*: *You can't beat the system*.

From [www.thefreedictionary.com](http://www.thefreedictionary.com). Note how even the least structural of claims refers to “elements” or “functions” or “processes”.

**computer system:** A **functional unit**, consisting of one or more computers and associated **software**, that (a) uses common **storage** for all or part of a **program** and also for all or part of the **data** necessary for the execution of the program, (b) executes **user-written** or user-designated programs, and (c) performs user-designated data manipulation, including arithmetic and logic operations. *Note:* A **computer system** may be a stand-alone system or may consist of several interconnected systems. *Synonyms* **ADP system**, **computing system**.

From [http://www.its.bldrdoc.gov/fs-1037/dir-008/\\_1198.htm](http://www.its.bldrdoc.gov/fs-1037/dir-008/_1198.htm). Not how the definition starts with “[a] functional unit....”.

It is respectfully submitted that Applicant’s claim 16 includes physical apparatus and functional uses of that apparatus in a way that is neither abstract, a law of nature, or a natural phenomenon. But further, the claim presents a combination of apparatus and functional steps that are clearly contemplated to be eligible for patentability as statutory subject matter. See MPEP Section 2106 IV B, *supra*.

It is therefore respectfully submitted that a *prima facie* case of non-statutory subject matter under Section 101 of independent claim 16 and its dependent claims 17-20- and 35-41 has not been made out in the Action, and should be withdrawn.

## Claim Rejections Under 35 U.S.C. § 102

The Action maintains an anticipation rejection of Claims 1-4, 7-11, 14, 16, 19, 24, 31 and 38 based solely on "Massaro", U.S. Patent No. 5,535,321. This rejection is respectfully traversed because it is respectfully submitted Massaro does not present a *prima facie* case of anticipation of Applicant's claims.

Massaro was discussed in detail in Applicant's most recent prior response, which is incorporated by reference herein.

Anticipation is a rigorous test. As stated by the MPEP:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). >"When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in "at least one of two-digit, three-digit, or four-digit" representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02.< "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Note that, in some circumstances, it is permissible to use multiple references in a 35 U.S.C. 102 rejection.

MPEP Section 2131. Note also how this excerpt recognizes a "system" claim is statutory.

The main point is that anticipation requires the single reference show the identical invention "in as complete detail as is contained in the ... claim" and that the reference show all material elements of the claim in the same arrangement as the claim.

The question is, therefore, whether or not Massaro appears to disclose each and every limitation of Applicant's independent claims 1, 11 and 16, in the order and arrangement of those

claims. Applicant earnestly and respectfully requests reconsideration because it is submitted Massaro does not meet this test.

Consider the following. It is common-place that software applications like word processing programs present a specific, pre-designed user-interface to the users of the application program. It is typical, for example, that the user-interface has a work space (e.g. where text can be typed). This work space varies according to what the user types into the work space or word-processing “document”. But the user-interface (the display screen) also a collection of tools for the user of the application. Some of these “tools” are even called “tool bars”. There can also be such things as words or symbols that indicate location of drop-down lists associated with menus of functions. There can also be rulers or buttons or properties information arranged around the work space.

Massaro speaks to an improvement regarding application user-interfaces. Massaro wants to provide different user-interfaces for different users of the application program, or different user-interfaces for the same user. The idea is to match the complexity or content of the user-interface to the competency of the user for the application program or a function of the application program. One example given is that a user may want a less complex user-interface for word processing application but a more complex (e.g. more functions) for a printing application.

Compare this to the present state of the art regarding many applications programs. They allow a user to customize the user-interface by selecting which toolbars they want active and displayed and/or what arrangement of the “tools” of the user-interface should be available and displayed. Massaro argues to improve on this by automatically presenting a user-interface of pre-designed characteristics based on a pre-programmed “user profile”.

Massaro is not an instructional program. It does not present information to be learned. It presents a user-interface according to a pre-programmed (or default) setting.

As stated above, Applicant's claims must be construed in light of Applicant's specification. Clearly, Applicant's specification provides exemplary embodiments that pertain to presentation of content to be learned by a user, and then additional learning options to enhance that learning. There is not identity between Massaro and Applicant's independent claims. Therefore, it is respectfully submitted a *prima facie* case of anticipation is not made out by Massaro regarding Applicant's claim 1, 11, or 16, or of the dependent claim therefrom.

The differences between Applicant's claim 1 and Massaro are more specifically set forth in the table below. The highlighted language is indicative of these differences, which are illustrated by the examples from Applicant's specification relative to the disclosure of Massaro.

Applicant's Claim	Applicant's Exemplary Embodiment	Massaro Disclosure
Claim 1 (Previously presented): A method of <b>providing instruction to a user of an instructional program</b> comprising:	See Applicant's Figures 2-3. Information to be learned is displayed to the user (e.g. left-hand side of screen in Figure 3). The application is a program to help users' learn the content of the information. In this example, the content is how to use an institutional credit card to make purchase on behalf of the institution. The user has to learn the rules and regulations regarding such use, which differ from those of a personal credit card. Those rules	Provides an application program having a customizable user interface. No disclosure of any application being an instructional program.

	and regulations have to be presented over many screens and in different sections of instruction.	
presenting an interactive instructional program to the user via an information processing device, the program having <b>a plurality of sections each comprising instructional information related to a subject;</b>	The content to be learned in Figure 3 is but one part of a plurality of content that is broken up in sections, each section being related to a subject. So as the user progresses through the instructional program to learn how to use the institutional credit card, different content is presented for learning.	Massaro's disclosure is different. It allows changing of the user interface depending on what application is selected by the user and, <u>importantly</u> , based on a pre-programmed user profile. In other words, before the user uses the computer, a user profile is set up which pre-selects the user interface for each given application, or simply has a default setting. There is not one set of content to be learned that is presented consistently. Rather it is a set of alternative user interfaces that can be displayed depending on pre-programmed user selection or profile, or by default.
making available to the user via the information processing device <b>additional instructional options related to the instructional information for one or more sections in the program;</b>	Has illustrated in Figure 3, when the content to be learned is displayed to the user on the left side of the screen, the instructional program also makes available on the right side of the screen "additional instructional options related to" the displayed content. The "Huh?" and "Tell me more" links or buttons give the user several different choices of <u>additional instructional options</u> . And those options relate to the content still on the left side of the screen. These options are the availability, in one example, of several different virtual tutors to help with the left side content.	Massaro only allows one user interface at a time. Therefore, not only does Massaro <u>not</u> disclose an instructional program, it emphasizes the pre-programming of what user interface is displayed at what time. That user interface is essentially the toolbars and screen display associated with an application. There are no additional instructional options available for selection. There are only different screen displays and toolbars, but only if the user overrides the pre-programming, goes into the user set up, and selects a different one. This is akin to adding or changing a toolbar on a word processing or spread sheet user interface.



<p>the additional instructional options for said one or more sections including additional instructional information available to the user via the information processing device in at least first and second levels of sophistication, <b>any of the at least first and second levels of sophistication being user-selectable via the information processing device, at any time and in any order.</b></p>	<p>As illustrated in Figures 4 and 5, if the user wants additional instructional help relative to the content to be learned, the user can select <u>any</u>, and <u>at any time or order</u>, by selecting, in the example, either “Huh?” (a first level of sophistication—gruff, simple)) or “Tell me more” (second level—professorial), or both. Figures 4 and 5 give examples of both. Note how the left side content to be learned is displayed and the right side additional instructional option is displayed (or otherwise presented to the user). The user can compare the content to be learned with the added help. As explained in detail in Applicant’s specification, it is submitted that this paradigm can greatly assist is the speed, thoroughness, and retention of learning the content.</p>	<p>Massaro’s goal is to allow automated pre-programming of application features to a user based on the user’s own characterization of the user’s skills relative to the application features. The user interfaces <u>automatically change</u>. The user override feature does not leave in place content to be learned and supplement it with learning options—it replaces one user interface with another.</p>
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Furthermore, Applicant’s claims 11 and 16 have similar limitations to Applicant’s claim 1, as shown by the tables below. The same result pertains to these claims relative to Massaro.

Claim 11 (Previously presented): An apparatus for <b>providing instruction to a user of an instructional program</b> comprising:
an information processing device including a digital information storage medium;
a software program loaded on the digital storage medium;
the program comprising;
(a) interactive <b>instructional information relating to a subject matter, the instructional information comprising a plurality of sections;</b>
(b) an instruction module including <b>additional instructional options related to the plurality of sections</b> , the additional instructional options including additional instructional information available to the user via the information processing device in no less than two levels of sophistication, <b>any of the levels of sophistication being user-selectable, at any time and in any order.</b>

Claim 16 (Previously presented): An <b>interactive learning system</b> comprising:
a <b>lesson</b> in the form of information on a digital media that is viewable and perceivable by a user on an information processing device;
<b>learning assistance related to</b>

**at least one part of the lesson information and in the form of additional information** on the digital media that is viewable and perceivable by a user on an information processing device;

the additional information available to the user via the information processing device in no less than two levels of sophistication, **any of the levels of sophistication being user-selectable, at any time and in any order.**

It is therefore respectfully submitted that Massaro does not anticipate the Applicant's claims.

### **Claim Rejections Under 35 U.S.C. § 103**

The Action also maintains obviousness rejections of Claims 5-6, 12-13, 15, 17, 18 and 20 based on Massaro and "Cook" U.S. Patent No. 5,727,950. This rejection is respectfully traversed for the reasons set forth in Applicant's most recent prior response.

Each of these dependent claims has limitations missing from Massaro, as pointed out above. Cook does not fill in those "gaps", so to speak. Therefore, there is not a teaching or suggestion of Applicant's claims by any combination of Massaro and Cook.

Note that there is no suggestion to combine Massaro and Cook. Cook relates to help screens. Massaro to user-interfaces. There is no suggestion of combining the two, as both are directed to different issues.

The Action also maintains the obviousness rejection of Claims 21-23, 25-30, 32-37 and 39-41 over Massaro. This is respectfully traversed for the reasons set forth above. Massaro has missing material limitations from Applicant's claims.

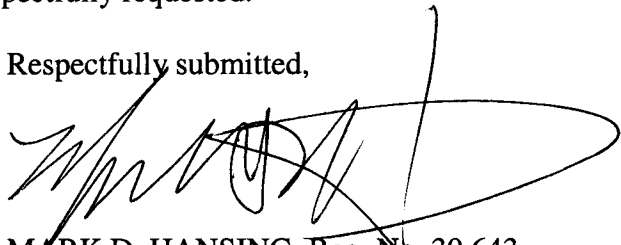
### **Conclusion**

It is respectfully submitted all matters raised in the Office Action have been addressed and remedied and that the application is in form for allowance.

No fees or extensions of time are believed to be due in connection with this response; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark D. Hansing', is written over a large, loopy, handwritten 'X' or similar mark.

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